

What is claimed:

1           1. A method of reducing power requirement of a front end  
2 device in a receiver, comprising the steps of:  
3           measuring a received signal strength (RSS);  
4           comparing the received signal strength to a predetermined  
5 threshold; and  
6           bypassing a filter and an amplifier in the front end if the  
7 received signal strength is greater than said threshold.

2. The method according to Claim 1, wherein said  
predetermined threshold is 90.5 dBm.

3. The method according to Claim 1, wherein said threshold  
comprises a minimum signal strength capable of being processed  
by electronics coupled to an output of said front end less  
strength of amplification by an LNA of said front end.

4. The method according to Claim 1, further comprising the  
step of:

powering down said amplifier if the amplifier is powered up  
and the received signal strength is greater than said threshold.

1           5. The method according to Claim 1, wherein:  
2           said front end comprises,  
3           a Low Noise Amplifier (LNA) having an LNA input coupled to  
4           a signal source and an LNA output,  
5           a filter having an input coupled to the LNA output and a  
6           filter output,  
7           an amplifier having an amplifier input coupled to the  
8           filter output and an amplifier output, and  
9           a bypass circuit comprising a bypass switch coupled between  
10          the input of the filter and the amplifier output; and  
11          said step of bypassing comprises closing the bypass switch.

1           6. The method according to Claim 1, wherein said bypass  
2           point comprises a minimum recognizable signal strength plus an  
3           amount of power representing error in RSS measurement and signal  
4           strength losses less an amount of amplification of the LNA.

1           7. The method according to Claim 6, wherein said minimum  
2           recognizable signal strength is a weakest signal capable of  
3           being processed by electronics couple to said mixer output.

1           8. The method according to Claim 6, wherein said minimum  
2           recognizable signal strength is -106 dBm.

1           9. The method according to Claim 1, wherein:  
2           said method is embodied in a set of computer instructions  
3 stored on a computer readable media;  
4           said computer instructions, when loaded into a computer,  
5 cause the computer to perform the steps of said method.

1           10. The method according to Claim 8, wherein said computer  
2 instruction are compiled computer instructions stored as an  
3 executable program on said computer readable media.

4           11. The method according to Claim 1, wherein said method  
5 is embodied in a set of computer readable instructions stored in  
6 an electronic signal.

7           12. A front end architecture, comprising:  
8           a Low Noise Amplifier (LNA) having an LNA input and an LNA  
9 output, said LNA input coupled to a signal source;  
10           a filter having an input coupled to the LNA output and a  
filter output;  
an RF amplifier having an RF amplifier input coupled to the  
filter output and an RF amplifier output;  
a first bypass circuit coupled between the input of the  
filter and the RF amplifier output and configured to bypass the  
filter and RF amplifier; and

11           a control device configured to activate and deactivate the  
12 first bypass circuit.

1           13. The front end according to Claim 12, wherein the first  
2 bypass circuit comprises a switch coupled between the input of  
3 the filter and the RF amplifier output.

1           14. The front end according to Claim 13, wherein said  
2 switch is a SPST.

1           15. The front end according to Claim 13, wherein said  
2 switch is a transistor.

1           16. The front end according to Claim 12, further  
2 comprising:

3           a signal detector coupled to said signal source and  
4 configured to determine a received signal strength (RSSI) of a  
5 signal from said signal source;

6           wherein said control device is further configured to  
7 activate and deactivate the first bypass circuit according to  
8 the RSSI of the signal from said signal source.

9  
1 17. The front end according to Claim 16, wherein:  
2 said control device comprises,  
3 a processing device having an input port coupled to said  
4 signal detector and an output port coupled to the first bypass  
5 circuit, and  
6 a storage media coupled to the processing device and having  
7 a set of instructions stored therein, that, when executed by the  
8 processing device, cause the processing device to,  
9 retrieve the RSSI of a signal from said signal source,  
10 compare the RSSI to at least one predetermined range, and  
11 bypassing the filter and RF amplifier in the front end if  
12 the RSSI is outside the predetermined range.

1 18. The front end architecture according to Claim 12,  
2 further comprising:  
3 a second bypass circuit coupled between the LNA input and  
4 the LNA output;  
5 wherein said control circuit is further configured to  
6 activate and deactivate the second bypass circuit.

1 19. The front end architecture according to Claim 18,  
2 wherein the first bypass circuit is activated if an RSSI of a  
3 received signal is greater than a first threshold, and the

second bypass circuit is activated if the RSSI exceeds a second threshold.

20. The front end device according to Claim 19, wherein the second threshold is higher than the first threshold.

21. The front end architecture according to Claim 18, wherein the second bypass circuit is activated if an RSSI of a received signal is greater than a first threshold, and the first bypass circuit is activated if the RSSI exceeds a second threshold higher than the first threshold.

22. A front end device, comprising:  
means for measuring a received signal strength (RSS);  
means for comparing the received signal strength to a predetermined threshold; and  
means for bypassing a filter and an amplifier in the front end if the received signal strength is greater than said threshold.

23. The front end device according to Claim 22, wherein said means for comparing comprises:

a computing means coupled to said means for measuring and said means for bypassing.

1           24. The front end according to Claim 23, wherein said  
2 computing means comprises a processing means coupled to a memory  
3 means having a set of instructions stored thereon, that, when  
4 executed by the processing means, cause the processing means to  
5 perform the steps of

6           retrieve an RSSI from said means for measuring,  
7           compare the RSSI to at least one predetermined range, and  
8           bypassing a filter and an amplifier in the front end if the  
9 RSSI is outside the predetermined ranges by sending a control  
10 signal to said means for bypassing.

1           25. The front end according to Claim 12, further  
2 comprising:

3           a means for low noise amplification (LNA) coupled to a  
4 signal source;

5           a filter means coupled to an output of the LNA; and  
6           an amplifier means coupled to an output of the filter  
7 means;

8           wherein said means for bypassing comprises a switching  
9 means an input of the filter means and an output of the  
10 amplifier means.